```
mysql> CREATE DATABASE xavier;
OK, 1 row affected (0.00 sec)
mysql> SHOW DATABASES;
 Database
  information_schema
 mysql
 performance_schema
  SVS
  tést
6 rows in set (0.00 sec)
mysql> USE empo;
Database changed
mysql> CREATE TABLE employee
          empno integer PRIMARY KEY.
          ename varchar(20) NOT NULL,
          job varchar(20),
          mgr integer,
          hiredate date
         sal integer,
comm decimal(6,2),
          deptno integer
     );
Query OK, 0 rows affected (0.28 sec)
mysql> INSERT INTO employee VALUES(7369, "SMITH", "CLERK", 7902, "1980-12-17", 800, NULL, 20);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7499, "ALLEN", "SALESMAN", 7698, "1980-08-15", 1600, 300, 30);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7521,"WARD","SALESMAN",7698,"1996-03-26",1250,500,30);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7566, "JONES", "MANAGER", 7839, "1995-10-31", 2975, NULL, 20);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7654, "MARTIN", "SALESMAN", 7698, "1998-12-05", 1250, 1400, 30);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7698, "BLAKE", "MANAGER", 7839, "1992-06-11", 2850, NULL, 30);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7782, "CLARK", "MANAGER", 7839, "1993-05-14", 2450, NULL, 10);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7788, "SCOTT", "ANALYST", 7566, "1996-03-05", 3000, NULL, 20);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7839, "KING", "PRESIDENT", NULL, "1990-06-09", 5000, 0, 10);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7844,"TURNER","SALESMAN",7698,"1995-06-04",1500,0,30);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7876, "ADAMS", "CLERK", 7788, "1999-06-04", 1100, NULL, 20);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7900,"JAMES","CLERK",7698,"2000-06-23",950,NULL,30);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7902, "FORD", "ANALYST", 7566, "1997-12-05", 3000, NULL, 20);
Query OK, 1 row affected (0.00 sec)
mysql> INSERT INTO employee VALUES(7934,"MILLER","CLERK",7782,"2000-01-21",1300,NULL,10);
Query OK, 1 row affected (0.00 sec)
```

## mysql> DESC employee;

Field	Туре	Null	Key	Default	Extra
empno ename for mgr hiredate sal comm deptno	int(11) varchar(20) varchar(20) int(11) date int(11) decimal(6,2) int(11)	NO   NO   YES   YES   YES   YES   YES	PRI           	NULL NULL NULL NULL NULL NULL NULL NULL	

8 rows in set (0.00 sec)

mysql> SHOW TABLES;

| Tables\_in\_empo | +------+ | employee |

1 row in set (0.00 sec)

mysql> SELECT empno, ename FROM employee;

Į.	empno	İ	ename	Ĭ
i	7369	i	SMITH	i
ı	7499	1	ALLEN	
ı	7521	1	WARD	
ı	7566	1	JONES	
	7654		MARTIN	
	7698	1	BLAKE	
ı	7782	1	CLARK	
ı	7788	1	SC0TT	
	7839		KING	
	7844		TURNER	
	7876		ADAMS	
	7900		JAMES	
	7902		FORD	
	7934		MILLER	
Δ.				

14 rows in set (0.00 sec)

mysql> SELECT empno, ename, sal, job FROM employee;

+		+		+		+		- +
į	empno	į	ename	į	sal	į	job	į
i	7369	i	SMITH	i	800	i	CLERK	i
1	7499	1	ALLEN	1	1600	1	SALESMAN	1
	7521		WARD	1	1250	1	SALESMAN	1
	7566		JONES	1	2975	1	MANAGER	1
	7654		MARTIN	1	1250	1	SALESMAN	1
	7698		BLAKE		2850	1	MANAGER	
	7782		CLARK	1	2450	1	MANAGER	1
	7788		SC0TT	1	3000	1	ANALYST	1
	7839		KING	1	5000	1	PRESIDENT	1
	7844		TURNER	1	1500	1	SALESMAN	1
	7876		ADAMS	1	1100	1	CLERK	1
	7900		JAMES	1	950	1	CLERK	1
	7902		FORD	1	3000	1	ANALYST	-
	7934		MILLER	1	1300		CLERK	-
+		+		+		+		+

mysql> SELECT \* FROM employee;

empno	ename	job	mgr	hiredate	sal	comm	deptno
7369	SMITH	CLERK	7902	1980-12-17	800	NULL	20
7499	ALLEN	SALESMAN	7698	1980-08-15	1600	300.00	30
7521	WARD	SALESMAN	7698	1996-03-26	1250	500.00	30
7566	JONES	MANAGER	7839	1995-10-31	2975	NULL	20
7654	MARTIN	SALESMAN	7698	1998-12-05	1250	1400.00	30
7698	BLAKE	MANAGER	7839	1992-06-11	2850	NULL	30
7782	CLARK	MANAGER	7839	1993-05-14	2450	NULL	10
7788	SCOTT	ANALYST	7566	1996-03-05	3000	NULL	20
7839	KING	PRESIDENT	NULL	1990-06-09	5000	0.00	10
7844	TURNER	SALESMAN	7698	1995-06-04	1500	0.00	30
7876	ADAMS	CLERK	7788	1999-06-04	1100	NULL	20
7900	JAMES	CLERK	7698	2000-06-23	950	NULL	30
7902	FORD	ANALYST	7566	1997-12-05	3000	NULL	20
7934	MILLER	CLERK	7782	2000-01-21	1300	NULL	10
+	+	+	+	+		·	++

14 rows in set (0.00 sec)

mysql> SELECT DISTINCT job FROM employee;

4.		- 4
į	job	į
+		+
	CLERK	
	SALESMAN	-
	MANAGER	-
	ANALYST	-
	PRESIDENT	1

mysql> SELECT empno, ename, sal\*12 "Annual salary" FROM employee;

Ĭ	empno	ename	Annual salary
Ĭ	7369	SMITH	9600
	7499	ALLEN	19200
	7521	WARD	15000
	7566	JONES	35700
	7654	MARTIN	15000
1	7698	BLAKE	34200
	7782	CLARK	29400
	7788	SCOTT	36000
	7839	KING	60000
1	7844	TURNER	18000
	7876	ADAMS	13200
	7900	JAMES	11400
1	7902	FORD	36000
I	7934	MILLER	15600
+		+	+

+-----+ 14 rows in set (0.00 sec)

mysql> SELECT ename, "Working as", job FROM employee;

1	ename	Working as	job
i	SMITH	Working as	CLERK
	ALLEN	Working as	SALESMAN
	WARD	Working as	SALESMAN
	JONES	Working as	MANAGER
	MARTIN	Working as	SALESMAN
	BLAKE	Working as	MANAGER
	CLARK	Working as	MANAGER
	SC0TT	Working as	ANALYST
	KING	Working as	PRESIDENT
	TURNER	Working as	SALESMAN
	ADAMS	Working as	CLERK
	JAMES	Working as	CLERK
	FORD	Working as	ANALYST
ļ	MILLER	Working as	CLERK

```
7+8 |
  15 |
1 row in set (0.00 sec)
mysql> SELECT 7+8 FROM employee;
 7+8 |
   15
   15
   15
  15
   15
   15
   15
   15
15
   15
   15
   15
   15
  15
14 rows in set (0.00 sec)
mysql> SELECT * FROM employee WHERE job="clerk";
 empno | ename
                  | job
                                  | hiredate
                                                | sal
                                                        | comm | deptno |
                          | mgr
   7369
          SMITH
                    CLERK
                                    1980-12-17
                                                          \mathsf{NULL}
          ADAMS
JAMES
                                    1999-06-04
2000-06-23
   7876
                    CLERK
                             7788
                                                  1100
                                                          \mathsf{NULL}
                                                                      20
                    CLERK
                             7698
                                                                      30
   7900
                                                   950
                                                          NULL
   7934 | MILLER | CLERK
                             7782
                                    2000-01-21
                                                                      10
                                                  1300
                                                          NULL
4 rows in set (0.00 sec)
mysql> SELECT empno, ename, job FROM employee WHERE deptno=20 AND sal>1000;
 empno | ename | job
                   MANAGER
   7566
          JONES
                   ANALYST
   7788
          SC0TT
   7876
          ADAMS
                   CLERK
   7902 | FORD
                 ANALYST
4 rows in set (0.00 sec)
mysql> SELECT * FROM employee WHERE job="clerk" OR job="manager" OR job="salesman";
  empno | ename
                  | job
                              | mgr
                                     | hiredate
                                                   | sal
                                                                      | deptno |
   7369
7499
          SMITH
                    CLERK
                                7902
                                       1980-12-17
                                                       800
                                                                \mathsf{NULL}
                                                                             20
                    SALESMAN
          ALLEN
                                7698
                                        1980-08-15
                                                      1600
                                                              300.00
                                                                             30
   7521
                    SALESMAN
                                7698
                                        1996-03-26
                                                      1250
                                                              500.00
                                                                            30
          WARD
   7566
          JONES
                    MANAGER
                                7839
                                        1995-10-31
                                                     2975
                                                                NULL
                                                                            20
   7654
          MARTIN
                    SALESMAN
                                7698
                                        1998-12-05
                                                      1250
                                                             1400.00
                                                                            30
   7698
7782
          BLAKE
                    MANAGER
MANAGER
                                7839
7839
                                       1992-06-11
                                                     2850
                                                                NULL
                                                                            30
          CLARK
                                        1993-05-14
                                                     2450
                                                                NULL
                                                                            10
          TURNER
                    SALESMAN
                                        1995-06-04
   7844
                                7698
                                                      1500
                                                                0.00
                                                                            30
   7876
          ADAMS
                    CLERK
                                7788
                                        1999-06-04
                                                      1100
                                                                NULL
                                                                            20
   7900
          JAMES
                                7698
                                        2000-06-23
                                                                NULL
                                                     1300
   7934
          MILLER I
                    CLERK
                                7782
                                       2000-01-21
                                                                NULL
                                                                            10
11 rows in set (0.00 sec)
```

mysql> SELECT 7+8;

mysql> SELECT \* FROM employee WHERE job in ("clerk", "manager", "salesman");

	+	+	+	+	+	+	+
empno	ename	job	mgr	hiredate	sal	comm	deptno
7369	SMITH	CLERK	7902	1980-12-17	800	NULL	20
7499	ALLEN	SALESMAN	7698	1980-08-15	1600	300.00	30
7521	WARD	SALESMAN	7698	1996-03-26	1250	500.00	30
7566	JONES	MANAGER	7839	1995-10-31	2975	NULL	20
7654	MARTIN	SALESMAN	7698	1998-12-05	1250	1400.00	30
7698	BLAKE	MANAGER	7839	1992-06-11	2850	NULL	30
7782	CLARK	MANAGER	7839	1993-05-14	2450	NULL	10
7844	TURNER	SALESMAN	7698	1995-06-04	1500	0.00	30
7876	ADAMS	CLERK	7788	1999-06-04	1100	NULL	20
7900	JAMES	CLERK	7698	2000-06-23	950	NULL	30
7934	MILLER	CLERK	7782	2000-01-21	1300	NULL	10

mysql> SELECT \* FROM employee WHERE job not in ("Clerk", "manager", "Salesman");

empno   enar		mgr	hiredate	sal	comm	deptno
7839   KING   7902   FORD	TT   ANALYST G   PRESIDENT O   ANALYST	7566   NULL   7566	1996-03-05 1990-06-09 1997-12-05	3000   5000   3000	NULL 0.00 NULL	20   10   20

3 rows in set (0.00 sec)

mysql> SELECT empno, ename, sal FROM employee WHERE sal  $\geqslant$  1000 AND sal  $\leqslant$  2000;

empno   ename   sal   7499   ALLEN   1600   7521   WARD   1250   7654   MARTIN   1250   7844   TURNER   1500   7876   ADAMS   1100   7934   MILLER   1300				
7521   WARD   1250   7654   MARTIN   1250   7844   TURNER   1500   7876   ADAMS   1100	Ī	empno	ename	sal
7934   MILLER   1300	+	7521 7654 7844 7876	WARD MARTIN TURNER ADAMS	1250   1250   1500   1100
++	+	7934	MILLER +	1300 +

6 rows in set (0.00 sec)

mysql> SELECT empno, ename, sal FROM employee WHERE sal BETWEEN 1000 AND 2000;

	empno	ename	sal
Ĭ	7499	ALLEN	1600
-	7521	WARD	1250
-	7654	MARTIN	1250
-	7844	TURNER	1500
-	7876	ADAMS	1100
1	7934	MILLER	1300
+		+	+

6 rows in set (0.00 sec)

mysql> SELECT empno, sal FROM employee WHERE sal NOT BETWEEN 1000 AND 2000;

į	empno	į	sal	į
Ť	7369	Ī	800	i
i	7566	i	2975	i
	7698		2850	
	7782		2450	
	7788		3000	
	7839		5000	
	7900		950	
	7902		3000	
+		+		+

mysql> SELECT \* FROM employee WHERE comm IS NULL;

9 rows in set (0.00 sec)

mysql> SELECT \* FROM employee WHERE comm IS NOT NULL;

empno   ename	job	mgr	hiredate	sal	comm	deptno
7499   ALLEN   7521   WARD   7654   MARTIN	SALESMAN   SALESMAN	7698     7698	1980-08-15 1996-03-26	1600     1250	300.00 500.00	30   30
7839   KING   7844   TURNER	PRESIDENT	NULL	1990-06-09	5000	0.00	10

5 rows in set (0.00 sec)

mysql> SELECT empno, ename FROM employee WHERE ename like "a%";

i	,	İ		i
i	7499	i		i
	7876		ADAMS	

+-----+ 2 rows in set (0.00 sec)

mysql> SELECT \* FROM employee WHERE ename like "\_\_\_\_";

empno   en	ame   job	mgr   h	niredate	sal	comm	deptno
7521   WA	RD   SALESMAN	7698   1	1996-03-26	1250	500.00	30
7839   KI	NG   PRESIDENT	NULL   1	1990-06-09	5000	0.00	10
7902   FC	RD   ANALYST	7566   1	1997-12-05	3000	NULL	20

3 rows in set (0.00 sec)

mysql> SELECT \* FROM employee WHERE ename like "%a%";

l empno	ename	   job	mgr	hiredate	sal	comm	deptno
				1980-08-15		•	
7521	WARD	SALESMAN	7698	1996-03-26	1250	500.00	30
7654	MARTIN	SALESMAN	7698	1998-12-05	1250	1400.00	30
7698	BLAKE	MANAGER	7839	1992-06-11	2850	NULL	30
7782	CLARK	MANAGER	7839	1993-05-14	2450	NULL	10
7876	ADAMS	CLERK	7788	1999-06-04	1100	NULL	20
7900	JAMES	CLERK	7698	2000-06-23	950	NULL	30

7 rows in set (0.00 sec)

mysql> SELECT empno, ename FROM employee WHERE ename like "\_\_r%";

	empno		ename
Ī	7521		WARD
i	7654 7844	i	MARTIN TURNER
Ţ	7902	1	FORD

mysql> SELECT \* FROM employee WHERE ename not like "%r";

empno	ename	job	mgr	hiredate	sal	comm	deptno
7369 7499 7521 7566 7654 7698 7782 7788 7839 7876 7900	SMITH   ALLEN   WARD   JONES   MARTIN   BLAKE   CLARK   SCOTT   KING   ADAMS   JAMES   FORD	CLERK SALESMAN SALESMAN MANAGER SALESMAN MANAGER MANAGER ANALYST CLERK CLERK ANALYST	7902 7698 7698 7698 7839 7698 7839 7566 NULL 7788 7698	1980-12-17 1980-08-15 1996-03-26 1995-10-31 1998-12-05 1992-06-11 1993-05-14 1996-03-05 1990-06-09 1999-06-04 2000-06-23 1997-12-05	800   1600   1250   2975   1250   2850   2450   3000   1100   950	NULL 300.00 500.00 NULL 1400.00 NULL NULL 0.00 NULL NULL NULL NULL	20   30   30   20   30   30   10   10   20   10   20   30

12 rows in set (0.00 sec)

mysql> SELECT \* FROM employee ORDER BY sal;

empno	ename	job	mgr	hiredate	sal	comm	deptno
7369	SMITH	CLERK	7902	1980-12-17	800	NULL	20
7900	JAMES	CLERK	7698	2000-06-23	950	NULL	30
7876	ADAMS	CLERK	7788	1999-06-04	1100	NULL	20
7521	WARD	SALESMAN	7698	1996-03-26	1250	500.00	30
7654	MARTIN	SALESMAN	7698	1998-12-05	1250	1400.00	30
7934	MILLER	CLERK	7782	2000-01-21	1300	NULL	10
7844	TURNER	SALESMAN	7698	1995-06-04	1500	0.00	30
7499	ALLEN	SALESMAN	7698	1980-08-15	1600	300.00	30
7782	CLARK	MANAGER	7839	1993-05-14	2450	NULL	10
7698	BLAKE	MANAGER	7839	1992-06-11	2850	NULL	30
7566	JONES	MANAGER	7839	1995-10-31	2975	NULL	20
7788	SCOTT	ANALYST	7566	1996-03-05	3000	NULL	20
7902	FORD	ANALYST	7566	1997-12-05	3000	NULL	20
7839	KING	PRESIDENT	NULL	1990-06-09	5000	0.00	10
+		+	+	·	· ——	<u> </u>	·

14 rows in set (0.00 sec)

mysql> SELECT empno, ename, hiredate, sal FROM employee WHERE job="salesman" ORDER BY hiredate DESC;

i	empno	i	ename	i	hiredate	İ	sal	i
-				-				
	7654	-	MARTIN		1998-12-05		1250	1
- 1		- 1		- 1				- 1
	7521	-	WARD		1996-03-26		1250	-
1	78/./.	1	THENED	- 1	1995-06-04	1	1500	-1
	7499		ALLEN		1980-08-15		1600	-

4 rows in set (0.00 sec)

mysql> SELECT sum(sal) FROM employee;

	sum(sal)	
+-		+
	29025	1

+-----+ 1 row in set (0.00 sec)

mysql> SELECT avg(comm) FROM employee;

i.	avg(comm)	1
+-	440.000000	+

mysql> SELECT min(sal), max(sal) FROM employee;

1	min(sal)	max(sal)
+		
	800	5000
т.		

```
mysql> SELECT min(hiredate) FROM employee;
 min(hiredate) |
| 1980-08-15
1 row in set (0.00 sec)
mysql> SELECT count(*) FROM employee;
| count(*) |
        14 |
1 row in set (0.00 sec)
mysql> SELECT count(*) FROM employee WHERE job='salesman';
 count(*) |
         4 |
1 row in set (0.00 sec)
mysql> SELECT job, count(*) FROM employee GROUP BY job;
            | count(*) |
 job
 Clerk
  Salesman
                     4
 Manager
ANALYST
                     3
 PRESIDENT
5 rows in set (0.00 sec)
mysql> SELECT count(DISTINCT deptno) FROM employee;
 count(distinct deptno) |
                       3 I
1 row in set (0.00 sec)
mysql> SELECT deptno, sum(sal) FROM employee GROUP BY deptno HAVING count(\star)>2;
 deptno | sum(sal) |
              10875
               9400
      30
      10 I
               8750
3 rows in set (0.00 sec)
mysql> SELECT deptno, count(*) FROM employee GROUP BY deptno HAVING deptno IS NOT NULL;
 deptno | count(*) |
                  5 |
      20 I
      30
                  6 I
      10
                  3 |
3 rows in set (0.00 sec)
mysql> SELECT deptno, sum(sal) FROM employee GROUP BY deptno;
 deptno | sum(sal) |
              10875
      20 I
      30
               9400
```

10

3 rows in set (0.00 sec)

8750

mysql> SELECT deptno, min(sal), max(sal) FROM employee GROUP BY deptno HAVING deptno IS NOT NULL;

+·	deptno	deptno   min(sal)		max(sal)	
   	20 30 10	   	800 950 1300	   	3000   2850   5000
+		+		. +	+

3 rows in set (0.00 sec)

 $\label{eq:mysql} \textit{MHERE sal>1000 GROUP BY job HAVING job} \\ \diamondsuit'clerk';$ 

job	sum(sal)	avg(sal)
salesman	5600	1400.0000
Manager	8275	2758.3333
Analyst	6000	3000.0000
President	5000	5000.0000

4 rows in set (0.10 sec)

mysql> SELECT deptno, count(\*) FROM employee WHERE job⇔'clerk' GROUP BY deptno HAVING count(\*)>2;

1	deptno		count(*)	
Ť	30	Ī	5	Ī
	20		3	

2 rows in set (0.00 sec)

mysql> DELETE FROM employee WHERE deptno IS NULL; Query OK, 0 rows affected (0.17 sec)

mysql> UPDATE employee SET sal=sal+10/100\*sal;

Query OK, 14 rows affected (0.51 sec) Rows matched: 14 Changed: 14 Warnings: 0

mysql> SELECT \* FROM employee;

- 4			+	· ——	t			
į	empno	ename	l job	mgr	hiredate	sal	comm	deptno
i	7369	Smith	Clerk	7902	1980-12-17	880	NULL	20
	7499	Allen	salesman	7698	1998-08-15	1760	300.00	30
	7521	Ward	Salesman	7698	1996-03-26	1375	500.00	30
	7566	Jones	Manager	7839	1995-10-31	3273	NULL	20
	7654	Martin	Salesman	7839	1998-12-05	1375	1400.00	30
	7698	Blake	Manager	7839	1992-06-11	3135	NULL	30
	7782	Clark	Manager	7839	1993-05-14	2695	NULL	10
	7788	Scott	Analyst	7566	1996-03-05	3300	NULL	20
	7839	King	President	NULL	1990-06-09	5500	0.00	10
	7844	Turner	Salesman	7698	1995-06-04	1650	0.00	30
	7876	Adams	Clerk	7788	1999-06-04	1210	NULL	20
	7900	James	Clerk	7698	2000-06-23	1045	NULL	30
	7902	Ford	analyst	7566	1997-12-05	3300	NULL	20
	7934	Miller	Clerk	7782	2000-01-21	1430	NULL	10
+		·	+		+	+		++

14 rows in set (0.00 sec)

mysql> UPDATE employee SET comm=500 WHERE deptno=30;

Query OK, 5 rows affected (0.30 sec) Rows matched: 6 Changed: 5 Warnings: 0

mysql> SELECT \* FROM employee;

mpno   7369	·	job	mgr	hiredate	sal	comm	deptno
,	C + I.						
7499   7521   7566   7654   7698   7782	Smith   Allen   Ward   Jones   Martin   Blake   Clark	Clerk salesman Salesman Manager Salesman Manager Manager	7902     7698     7698     7698     7839     7839     7839	1980-12-17   1998-08-15   1996-03-26   1995-10-31   1998-12-05   1992-06-11   1993-05-14   1998-03-08	880 1760 1375 3273 1375 3135 2695	NULL     500.00     500.00     NULL     500.00     500.00	20   30   30   30   20   30   30   10
7839   7844   7876   7900   7902   7934	King   Turner   Adams   James   Ford   Miller	President Salesman Clerk Clerk analyst Clerk	NULL     7698     7788     7698     7566     7782	1990-06-09   1995-06-04   1995-06-04   2000-06-23   1997-12-05   2000-01-21	5500 1650 1210 1045 3300 1430	0.00     500.00     NULL     500.00     NULL     NULL	10   30   20   30   20   10
	7521   7566   7654   7698   7782   7788   7839   7844   7876   7900   7902	7521   Ward   7566   Jones   7654   Martin   7658   Blake   7782   Clark   7788   Scott   7839   King   7844   Turner   7876   Adams   7900   James   7902   Ford	7521   Ward   Salesman 7566   Jones   Manager 7654   Martin   Salesman 7698   Blake   Manager 7782   Clark   Manager 7788   Scott   Analyst 7839   King   President 7876   Adams   Clerk 7900   James   Clerk 7902   Ford   analyst	7521   Ward   Salesman   7698   7566   Jones   Manager   7839   7654   Martin   Salesman   7839   7654   Martin   Salesman   7839   7698   Blake   Manager   7839   7782   Clark   Manager   7839   7782   Clark   Manager   7839   7566   7839   King   President   NULL   7844   Turner   Salesman   7698   7876   Adams   Clerk   7788   7900   James   Clerk   7698   7902   Ford   analyst   7566	7521   Ward   Salesman   7698   1996-03-26   7566   Jones   Manager   7839   1995-10-31   7654   Martin   Salesman   7839   1995-10-31   7658   Blake   Manager   7839   1992-06-11   7782   Clark   Manager   7839   1992-06-11   7788   Scott   Analyst   7566   1996-03-05   7839   King   President   NULL   1990-06-09   7844   Turner   Salesman   7698   1995-06-04   7876   Adams   Clerk   7788   1999-06-04   7870   James   Clerk   7788   2000-06-23   7902   Ford   analyst   7566   1997-12-05	7521   Ward   Salesman   7698   1996-03-26   1375 7566   Jones   Manager   7839   1995-10-31   3273 7654   Martin   Salesman   7839   1998-12-05   1375 7698   Blake   Manager   7839   1992-06-11   3135 7782   Clark   Manager   7839   1993-05-14   2695 7788   Scott   Analyst   7566   1996-03-05   3300 7839   King   President   NULL   1990-06-09   5500 7844   Turner   Salesman   7698   1995-06-04   1650 7876   Adams   Clerk   7788   1999-06-04   1210 7900   James   Clerk   7698   2000-06-23   1045 7902   Ford   analyst   7566   1997-12-05   3300	7521   Ward   Salesman   7698   1996-03-26   1375   500.00   7566   Jones   Manager   7839   1995-10-31   3273   NULL   7654   Martin   Salesman   7839   1998-12-05   1375   500.00   7688   Blake   Manager   7839   1992-06-11   3135   500.00   7782   Clark   Manager   7839   1993-05-14   2695   NULL   7788   Scott   Analyst   7566   1996-03-05   3300   NULL   7839   King   President   NULL   1996-06-09   5500   0.00   7876   Adams   Clerk   7788   1995-06-04   1650   500.00   7876   Adams   Clerk   7788   1999-06-04   1210   NULL   7900   James   Clerk   7788   2000-06-23   1045   500.00   7902   Ford   analyst   7566   1997-12-05   3300   NULL

mysql> UPDATE employee SET deptno=30, sal=sal+2000 WHERE deptno=10; Query OK, 3 rows affected (0.12 sec) Rows matched: 3 Changed: 3 Warnings: 0

mysql> SELECT \* FROM employee;

empno	ename	job	mgr	hiredate	sal	comm	deptno
7369	Smith	Clerk	7902	1980-12-17	880	NULL	20
7499	Allen	salesman	7698	1998-08-15	1760	500.00	30
7521	Ward	Salesman	7698	1996-03-26	1375	500.00	30
7566	Jones	Manager	7839	1995-10-31	3273	NULL	20
7654	Martin	Salesman	7839	1998-12-05	1375	500.00	30
7698	Blake	Manager	7839	1992-06-11	3135	500.00	30
7782	Clark	Manager	7839	1993-05-14	4695	NULL	30
7788	Scott	Analyst	7566	1996-03-05	3300	NULL	20
7839	King	President	NULL	1990-06-09	7500	0.00	30
7844	Turner	Salesman	7698	1995-06-04	1650	500.00	30
7876	Adams	Clerk	7788	1999-06-04	1210	NULL	20
7900	James	Clerk	7698	2000-06-23	1045	500.00	30
7902	Ford	analyst	7566	1997-12-05	3300	NULL	20
7934	Miller	Clerk	7782	2000-01-21	3430	NULL	30
	+	+	+	+	++		++
	7369 7499 7521 7566 7654 7698 7782 7788 7839 7844 7876 7900	7369   Smith 7499   Allen 7521   Ward 7566   Jones 7654   Martin 7698   Blake 7782   Clark 7788   Scott 7839   King 7844   Turner 7876   Adams 7900   James 7902   Ford 7934   Miller	7369   Smith   Clerk 7499   Allen   salesman 7521   Ward   Salesman 7566   Jones   Manager 7654   Martin   Salesman 7698   Blake   Manager 7782   Clark   Manager 7788   Scott   Analyst 7839   King   President 7844   Turner   Salesman 7876   Adams   Clerk 7900   James   Clerk 7902   Ford   analyst	7369   Smith   Clerk   7902 7499   Allen   salesman   7698 7521   Ward   Salesman   7698 7566   Jones   Manager   7839 7654   Martin   Salesman   7839 7698   Blake   Manager   7839 7782   Clark   Manager   7839 7788   Scott   Analyst   7566 7839   King   President   NULL 7844   Turner   Salesman   7698 7876   Adams   Clerk   7788 7900   James   Clerk   7698 7902   Ford   analyst   7566 7934   Miller   Clerk   7782	7369   Smith   Clerk   7768   1980-12-17 7499   Allen   salesman   7698   1998-08-15 7521   Ward   Salesman   7698   1996-03-26 7566   Jones   Manager   7839   1995-10-31 7654   Martin   Salesman   7839   1995-10-31 7698   Blake   Manager   7839   1992-06-11 7782   Clark   Manager   7839   1992-06-11 7788   Scott   Analyst   7566   1996-03-05 7839   King   President   NULL   1990-06-09 7844   Turner   Salesman   7698   1995-06-04 7876   Adams   Clerk   7788   1999-06-04 7900   James   Clerk   7698   2000-06-23 7902   Ford   analyst   7566   1997-12-05 7934   Miller   Clerk   7782   2000-01-21	7369   Smith   Clerk   7902   1980-12-17   880   7499   Allen   salesman   7698   1998-08-15   1760   7521   Ward   Salesman   7698   1996-03-26   1375   7566   Jones   Manager   7839   1995-10-31   3273   7654   Martin   Salesman   77839   1998-12-05   1375   7698   Blake   Manager   7839   1998-12-05   1375   7698   Blake   Manager   7839   1992-06-11   3135   7782   Clark   Manager   7839   1993-05-14   4695   7788   Scott   Analyst   7566   1996-03-05   3300   7839   King   President   NULL   1990-06-09   7500   7844   Turner   Salesman   7698   1995-06-04   1650   7876   Adams   Clerk   7788   1999-06-04   1210   7900   James   Clerk   7768   2000-06-23   1045   7902   Ford   analyst   7566   1997-12-05   3300   7934   Miller   Clerk   7782   2000-01-21   3430	7369   Smith   Clerk   7768   1980-12-17   880   NULL   7499   Allen   salesman   7698   1998-08-15   1760   500.00   7521   Ward   Salesman   7698   1996-03-26   1375   500.00   7566   Jones   Manager   7839   1995-10-31   3273   NULL   7654   Martin   Salesman   7839   1998-12-05   1375   500.00   7698   Blake   Manager   7839   1992-06-11   3135   500.00   7698   Blake   Manager   7839   1992-06-11   3135   500.00   7782   Clark   Manager   7839   1993-05-14   4695   NULL   7839   King   President   NULL   1990-06-09   7500   0.00   7844   Turner   Salesman   7698   1995-06-04   1650   500.00   7876   Adams   Clerk   7788   1999-06-04   1210   NULL   7900   James   Clerk   7698   2000-06-23   1045   500.00   7902   Ford   analyst   7566   1997-12-05   3300   NULL   7934   Miller   Clerk   77782   2000-01-21   3430   NULL

14 rows in set (0.00 sec)

mysql> SELECT\* FROM employee, dept;

empno	ename	job	mgr	hiredate	sal	comm	deptno	deptno	dname	loc
7369	Smith	Clerk	7902	1980-12-17	800	NULL	20	40	Operations	Boston
7369	Smith	Clerk	7902	1980-12-17	800	NULL	20	30	Sales	Chicago
7369	Smith	Clerk	7902	1980-12-17	800	NULL	20	20	Research	Dallas
7369	Smith	Clerk	7902	1980-12-17	800	NULL	20	10	Accounting	New Yo
7499	Allen	Salesman	7698	1998-08-15	1600	300.00	30	40	Operations	Boston
7499	Allen	Salesman	7698	1998-08-15	1600	300.00	30	30	Sales	Chicag
7499	Allen	Salesman	7698	1998-08-15	1600	300.00	30	20	Research	Dallas
7499	Allen	Salesman	7698	1998-08-15	1600	300.00	30	10	Accounting	New Yo
7521	Ward	Salesman	7698	1996-03-26	1250	500.00	30	40	Operations	Boston
7521	Ward	Salesman	7698	1996-03-26	1250	500.00	30	30		Chicag
7521		Salesman	7698		1250	500.00	30			Dallas
7521		Salesman	7698		1250	500.00			Accounting	
7566		Manager	7839		2975	NULL			Operations	
7566		Manager	7839		2975	NULL				Chicag
7566		Manager	7839		2975	NULL	20		Research	Dallas
7566		Manager	7839		1 2975	l NULL	20		Accounting	
7654			7698		1250	1400.00	30			
7654		Salesman	7698		1250	1400.00	30			Chicag
7654			7698		1250	1400.00	30		,	Dallas
7654		Salesman	7698		1250	1400.00	30	10	Accounting	
7698		Manager	7839		2850	NULL				
7698		Manager	7839		2850	NULL			Sales	Chicag
7698		Manager	7839	1 1//2 00 11	2850	NULL				Dallas
7698		Manager	7839		2850	l NULL	30	10	Accounting	
	Clark	Manager	7839		2450	NULL			Operations	
7782	Clark	Manager	7839	1993-05-14	2450	NULL	10			Chicag
	Clark	Manager	7839	1993-05-14	2450	NULL	10	20	Research	Dallas
7782	Clark	Manager	7839	1993-05-14	2450	NULL	10	10	Accounting	New Yo
7788	Scott	Analyst	7566	1996-03-05	3000	NULL	20	40	Operations	Boston
7788	Scott	Analyst	7566	1996-03-05	3000	NULL	20	30	Sales	Chicag
7788	Scott	Analyst	7566	1996-03-05	3000	NULL	20	20	Research	Dallas
7788	Scott	Analyst	7566	1996-03-05	3000	NULL	20	10	Accounting	New Yo
7839	King	President	NULL	1990-06-09	5000	0.00	10	40	Operations	Boston
7839	King	President	NULL	1990-06-09	5000	0.00	10	30	Sales	Chicag
7839	King	President	NULL	1990-06-09	5000	0.00	10	20	Research	Dallas
7839		President	NULL		5000	0.00	10		Accounting	
7844			7698		1500	0.00	30	40	Operations	
7844	Turner		7698		1500	0.00	30	30	Sales	Chicag
7844			7698		1500	0.00	30			Dallas
7844					1500	0.00			Accounting	
7876		Clerk	7788		1100	NULL			Operations	
	Adams	Clerk	7788		1100	NULL NULL	20	30		Chicag
7876		Clerk	7788		1100	NULL NULL			Research	Dallas
7876			7788		1100	NULL				
7900		Clerk	7698		950	NULL			Operations	
7900		Clerk	7698		950	NULL	30		Sales	Chicag
7900		Clerk	7698		950	NULL				Dallas
		Clerk	7698		950	NULL			Accounting	
			7566		3000	NULL			Operations	
	Ford	Analyst	7566	1 1/// 12 00	3000	NULL			Sales	Chicag
7902		Analyst	7566		3000	NULL	20			Dallas
	Ford	Analyst		1997-12-05	3000	NULL			Accounting	
7934			7782		1300	NULL				Boston
7934	Miller	Clerk	7782	2000-01-21	1300	NULL	10	30	Sales	Chicag
7934	Miller	Clerk	7782	2000-01-21	1300	NULL	10	20	Research	Dallas
7027	Miller	l Clark	7782	2000-01-21	1 1300	NULL	10	1 10	Accounting	Now Vo

mysql> SELECT \* FROM employee, dept WHERE employee.deptno = dept.deptno;

+	empno	ename	job	mgr	hiredate	sal	comm	deptno	deptno	dname	loc
i	7369	Smith	Clerk	7902	1980-12-17	800	NULL	20	20	Research	Dallas
	7499	Allen	Salesman	7698	1998-08-15	1600	300.00	30	30	Sales	Chicago
	7521	Ward	Salesman	7698	1996-03-26	1250	500.00	30	30	Sales	Chicago
	7566	Jones	Manager	7839	1995-10-31	2975	NULL	20	20	Research	Dallas
	7654	Martin	Salesman	7698	1998-12-05	1250	1400.00	30	30	Sales	Chicago
	7698	Blake	Manager	7839	1992-06-11	2850	NULL	30	30	Sales	Chicago
	7782	Clark	Manager	7839	1993-05-14	2450	NULL	10	10	Accounting	New York
	7788	Scott	Analyst	7566	1996-03-05	3000	NULL	20	20	Research	Dallas
	7839	King	President	NULL	1990-06-09	5000	0.00	10	10	Accounting	New York
-	7844	Turner	Salesman	7698	1995-06-04	1500	0.00	30	30	Sales	Chicago
-	7876	Adams	Clerk	7788	1999-06-04	1100	NULL	20	20	Research	Dallas
	7900	James	Clerk	7698	2000-06-23	950	NULL	30	30	Sales	Chicago
-	7902	Ford	Analyst	7566	1997-12-05	3000	NULL	20	20	Research	Dallas
- [	7934	Miller	Clerk	7782	2000-01-21	1300	NULL	10	10	Accounting	New York
+		+	+	+				+	·		+

14 rows in set (0.00 sec)

mysql> SELECT employee.deptno,empno,ename,dname FROM employee,dept WHERE employee.deptno=dept.deptno AND sal BETWEEN 1000 AND 2000;

+		+	·	+
deptno	empno	ename	dname	İ
10   20   30   30   30	7876 7844	Adams     Turner     Martin	Sales Sales	-

6 rows in set (0.00 sec)

mysql> SELECT employee.\* FROM employee,dept WHERE dept.deptno = employee.deptno AND loc='chicago';

+	+	+	+	·	++		++
em	pno   ename	job	mgr	hiredate	sal	comm	deptno
	499   Allen						
7	521   Ward	Salesman	7698	1996-03-26	1250	500.00	30
7	654   Martin	Salesman	7698	1998-12-05	1250	1400.00	30
7	698   Blake	Manager	7839	1992-06-11	2850	NULL	30
7	844   Turner	Salesman	7698	1995-06-04	1500	0.00	30
7	900   James	Clerk	7698	2000-06-23	950	NULL	30
4							

6 rows in set (0.00 sec)

mysql> SELECT ename, job, sal, dname FROM employee e, dept d WHERE d.deptno = e.deptno AND comm IS NULL;

+	+	++	+
ename	l job	sal	dname
Miller   Clark   Ford   Adams   Scott   Jones   Smith   James   Blake	Clerk   Manager   Analyst   Clerk   Analyst   Manager   Clerk   Clerk   Manager	1300     2450     3000     1100     3000     2975     800     950	Accounting   Accounting   Research   Research   Research   Research   Research   Research   Sales   Sales

mysql> SELECT \* FROM employee NATURAL JOIN dept;

deptno	l empno	ename	job	mgr	hiredate	sal	comm	dname	loc
20	7369	Smith	Clerk	7902	1980-12-17	800	NULL	Research	Dallas
30	7499	Allen	Salesman	7698	1998-08-15	1600	300.00	Sales	Chicago
30	7521	Ward	Salesman	7698	1996-03-26	1250	500.00	Sales	Chicago
20	7566	Jones	Manager	7839	1995-10-31	2975	NULL	Research	Dallas
30	7654	Martin	Salesman	7698	1998-12-05	1250	1400.00	Sales	Chicago
30	7698	Blake	Manager	7839	1992-06-11	2850	NULL	Sales	Chicago
10	7782	Clark	Manager	7839	1993-05-14	2450	NULL	Accounting	New York
20	7788	Scott	Analyst	7566	1996-03-05	3000	NULL	Research	Dallas
10	7839	King	President	NULL	1990-06-09	5000	0.00	Accounting	New York
30	7844	Turner	Salesman	7698	1995-06-04	1500	0.00	Sales	Chicago
20	7876	Adams	Clerk	7788	1999-06-04	1100	NULL	Research	Dallas
30	7900	James	Clerk	7698	2000-06-23	950	NULL	Sales	Chicago
20	7902	Ford	Analyst	7566	1997-12-05	3000	NULL	Research	Dallas
10	7934	Miller	Clerk	7782	2000-01-21	1300	NULL	Accounting	New York